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10/811,487   F40.12-0025
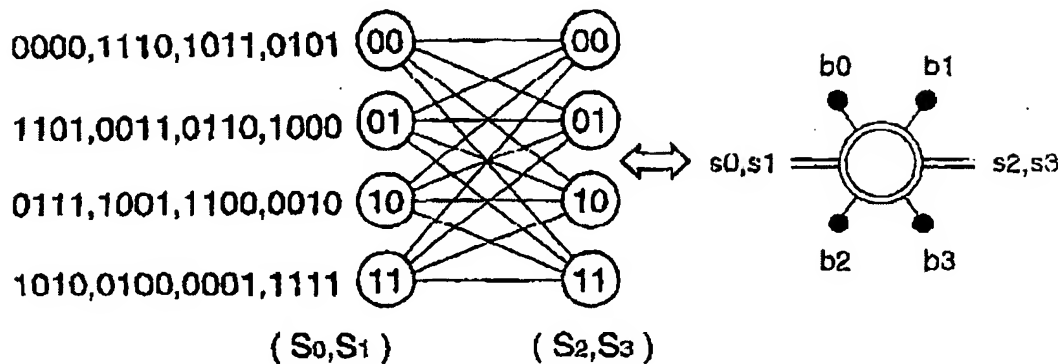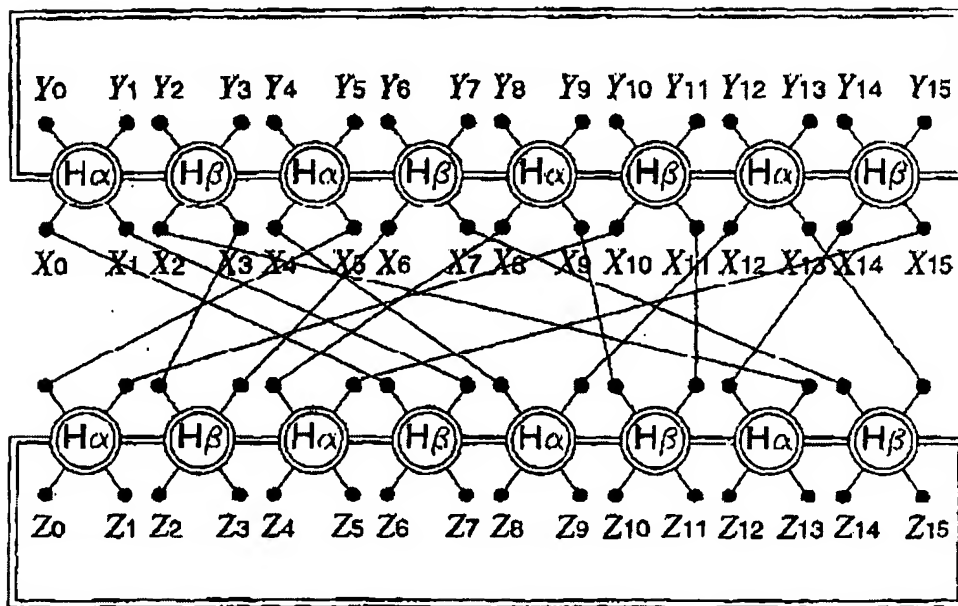ERROR CORRECTION CODING METHOD...

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Labels of branches (b_0, b_1, b_2, b_3)

0000,1110,1011,0101 (00)

1101,0011,0110,1000 (01)

0111,1001,1100,0010 (10)

1010,0100,0001,1111 (11)

(S_0, S_1) (S_2, S_3)

Fig. 1

Fig. 2

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X_5X_9 $X_4X_{11}R_0R_1$ X_6X_8 $X_{10}X_0$ $X_1X_2R_2R_3$ X_3X_7

H_g H H_g H_d H H_d

Fig. 3

Fig. 4

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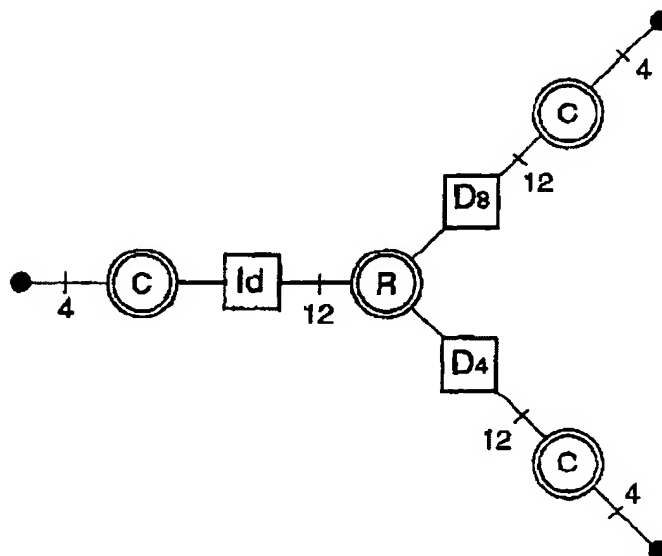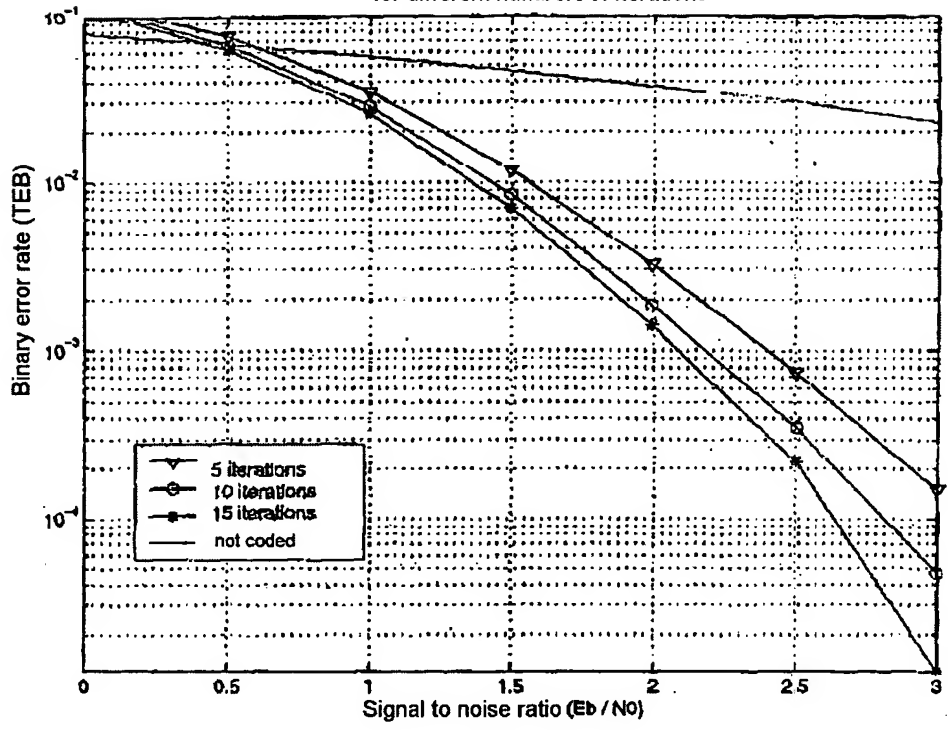10/811,487   F40.12-0025
ERROR CORRECTION CODING METHOD...

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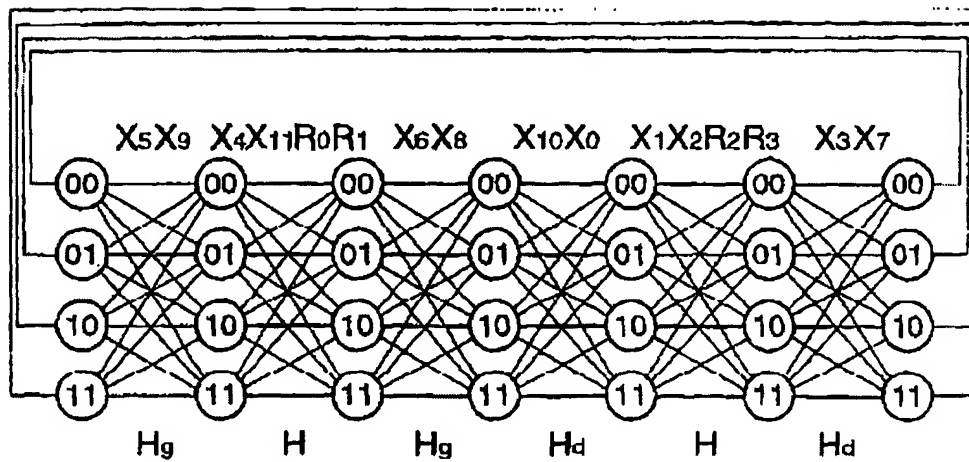
Binary error rate curves for a [300,100] code on a Gaussian channel
for different numbers of iterations

Fig. 5a

Binary error rate curves for a [600,200] code on a Gaussian channel
for different numbers of iterations

Fig. 5b

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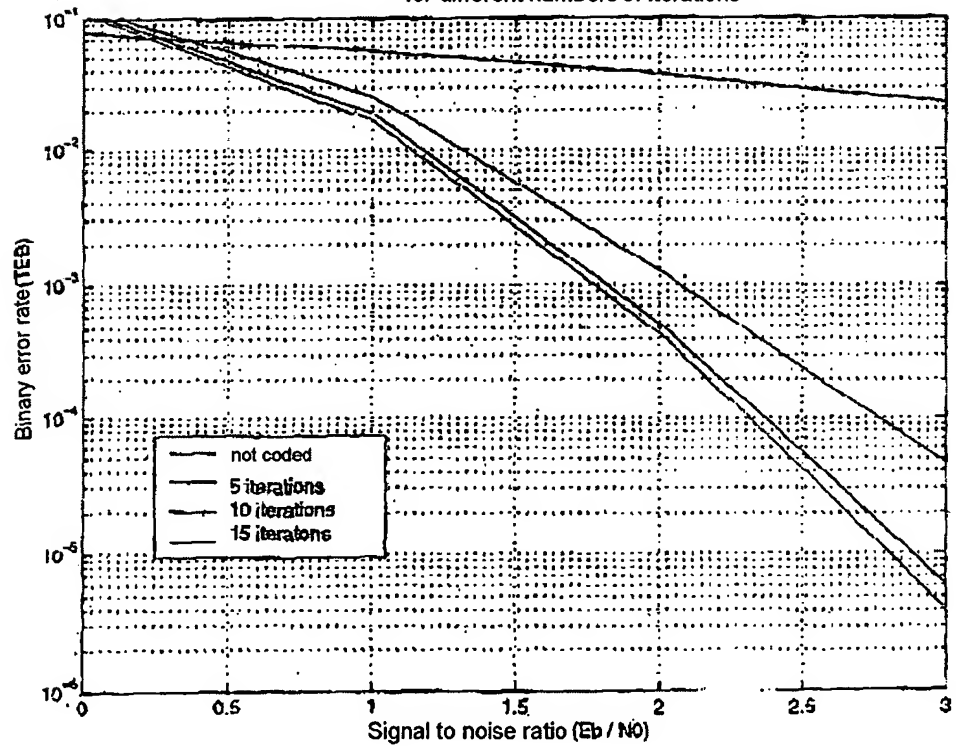10/811,487   F40.12-0025
ERROR CORRECTION CODING METHOD...

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Binary error rate curves for a [160,60] code on a Gaussian channel
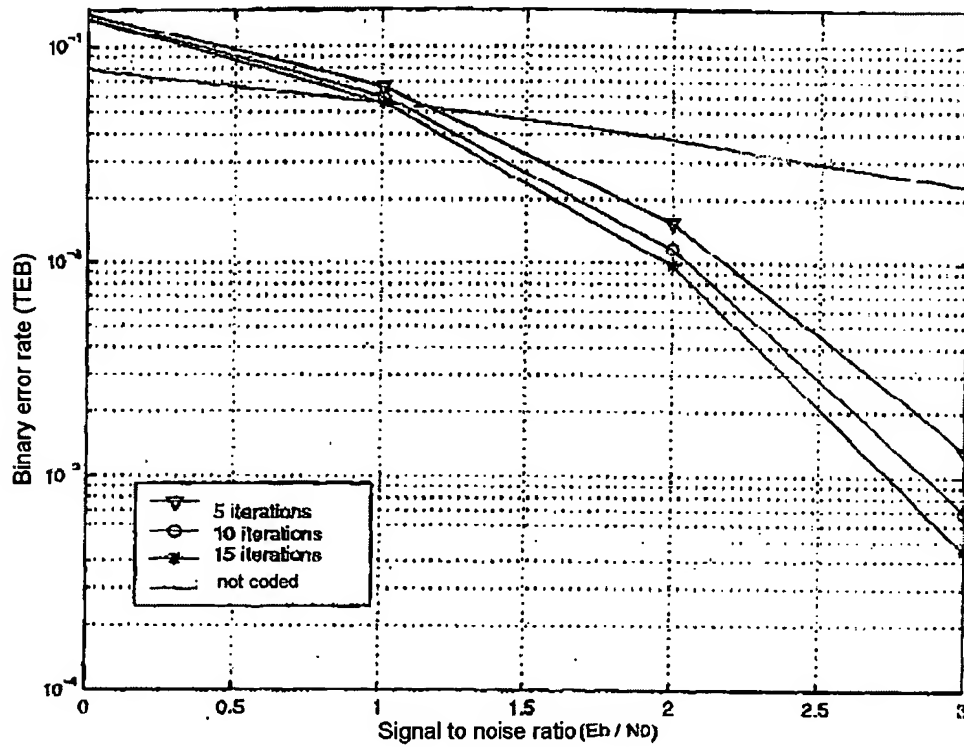for different numbers of iterations

Fig. 5c

Binary error rate curves for a [400,200] code on a Gaussian channel
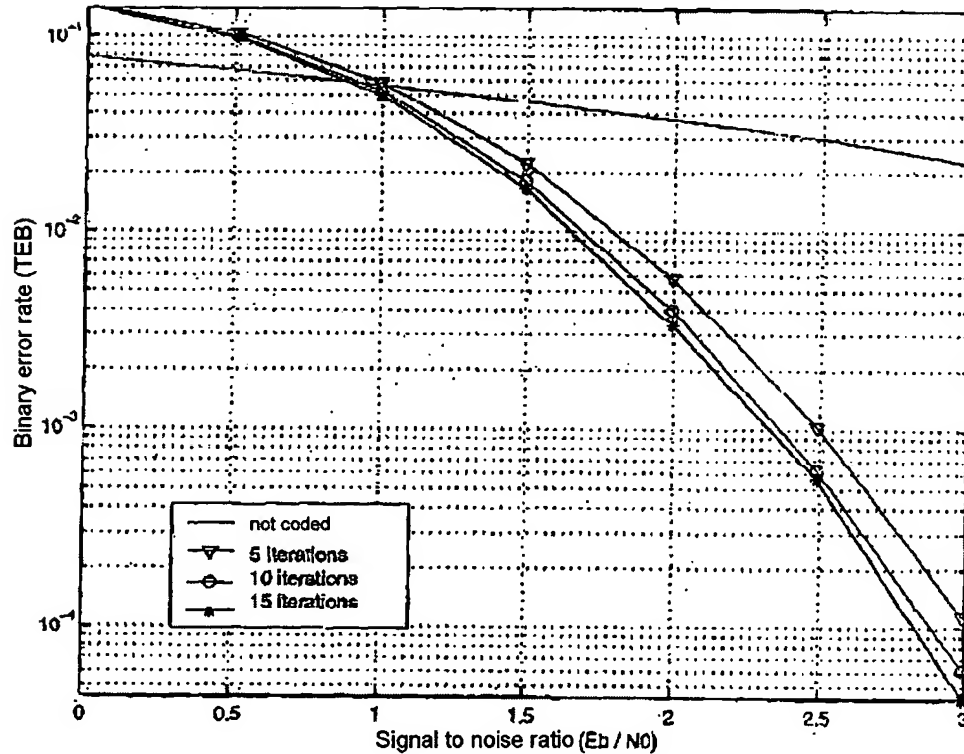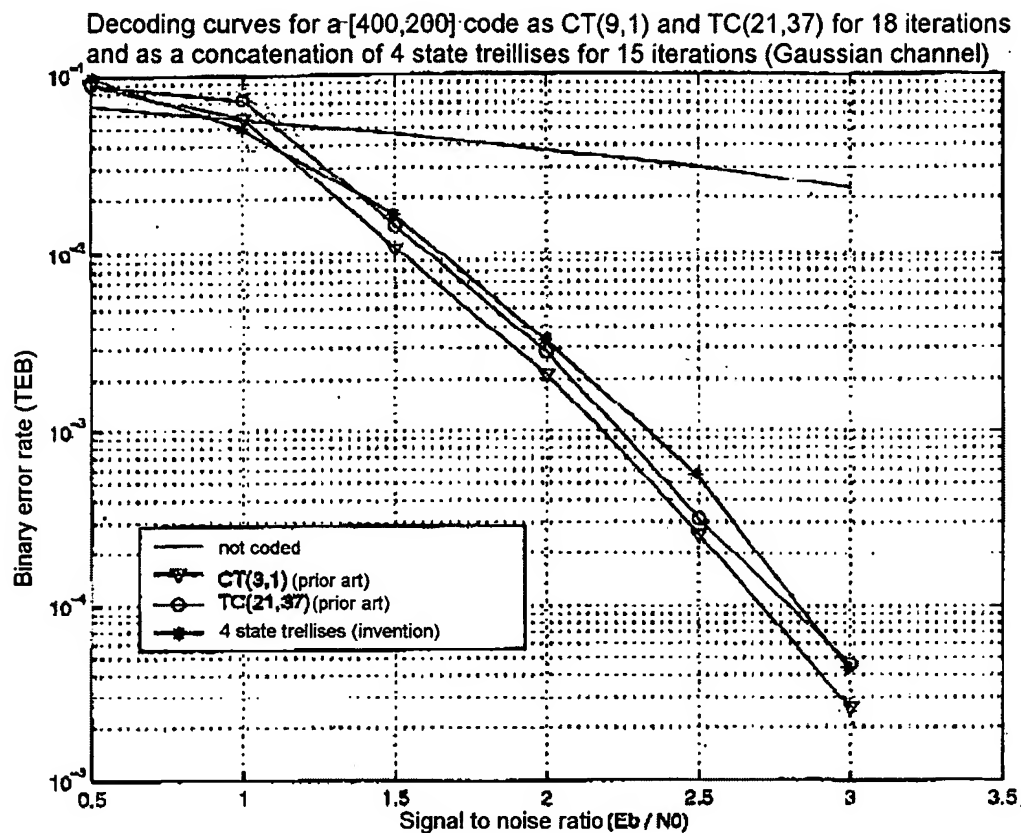for different numbers of iterations

Fig. 5d

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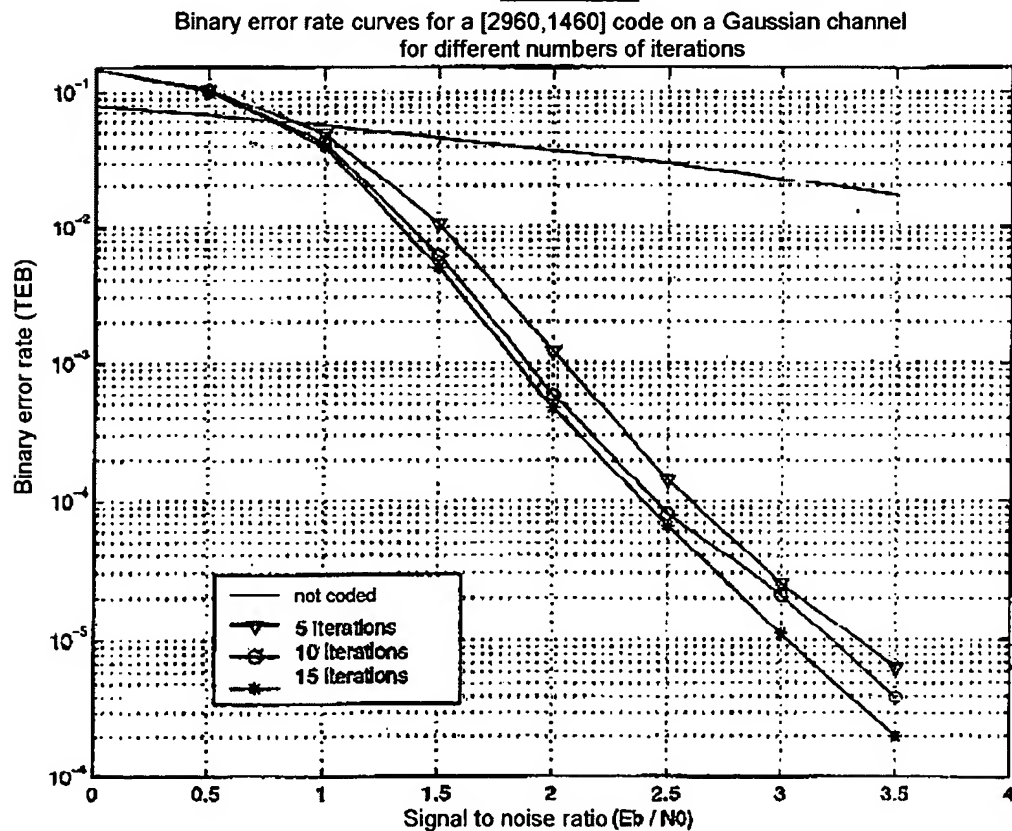10/811,487   F40.12-0025
ERROR CORRECTION CODING METHOD

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Decoding curves for a [400,200] code as CT(9,1) and TC(21,37) for 18 iterations and as a concatenation of 4 state treillises for 15 iterations (Gaussian channel)

not coded
CT(9,1) (prior art)
TC(21,37) (prior art)
4 state trellises (invention)

Binary error rate (TEB)

Signal to noise ratio (Eb / N0)

Fig. 5e

Binary error rate curves for a [2960,1460] code on a Gaussian channel
for different numbers of iterations

not coded
5 iterations
10 iterations
15 iterations

Binary error rate (TEB)

Signal to noise ratio (Eb / N0)

Fig. 6

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Fig. 7

Fig. 8